

```
READY.
10 REM 3-D SURFACE PLOTTER FOR 128
20 REM ORIGINAL PROGRAM FOR THE MICROBEE BY JOHN MC CORMACK
30 REM CONVERSION BY NICHOLAS SCULL
130 PRINT "3";
140 INPUT "HOW MANY LINES RESOLUTION (X-AXIS) ":N
150 INPUT "HOW MANY LINES RESOLUTION (Y-AXIS) ":M
160 INPUT "WHAT'S THE DOMAIN OF X (MIN,MAX) ":X0,X1
170 INPUT "WHAT'S THE DOMAIN OF Y (MIN,MAX) ":Y0,Y1
175 INPUT "DO YOU WANT A PRINTOUT (Y,N) ":P$
180 PRINT "3";GRAPHIC1:SCALE1:SCNCLR
200 NO=(X1-X0)/N;MO=(Y1-Y0)/M
210 A=512:B=512
215 A1=2.17993878:S1=SIN(A1):C1=COS(A1)
220 FOR Y2=Y0 TO Y1 STEP MO
230 FOR X2=X0 TO X1
240 GOSUB 1000
250 GOSUB 2000
260 DRAW 1,A+U,B+V/2
270 NEXT X2:NEXT Y2
290 FOR X2=X0 TO X1 STEP NO
300 FOR Y2=Y0 TO Y1
310 GOSUB 1000
320 GOSUB 2000
330 DRAW 1,A+U,B+V/2
340 NEXT Y2:NEXT X2
350 IF P$="Y" THEN GOSUB 60000 ELSE 360
360 GET A$:IF A$="" THEN 360:GRAPHIC0:PRINT "3":END
370 GRAPHIC0:PRINT "3":END
1000 REM THIS GENERATES THE EQUATION
1010 REM
1020 Z2=300/((X2-X0/1000)+(Y2-Y0/500)+1):Z2=Z2*(-1)
1030 RETURN
2000 REM THIS CONVERTS 3-D INTO PERSPECTIVE 2-D
2010 REM
2020 REM
2030 U1=X2-Y2*C1
2040 V1=Z2+Y2*S1
2050 U=INT(U1)
2060 V=INT(V1)
2070 RETURN
60000 SOUND 1,40960,60
60001 GET T$:IF T$="" THEN 60001
60005 SL=8192:REM START OF HI-RES SCREEN
60010 DIM SC(127),A$(25,40):FOR I=0 TO 127:READ SC(I):T=T+SC(I):NEXT I
60020 IF T<24512 THEN GRAPHIC0:PRINT "ERROR IN DATA STATEMENTS":STOP
60030 DATA 128,192,160,224,144,208,176,240,136,200,168,232,152,216,184,248,132
60040 DATA 196,164,228,148,212,180,244,140,204,172,236,156,220,188,252,130,194
60050 DATA 162,226,146,210,178,242,138,202,170,234,154,218,186,250,134,198,166
60060 DATA 230,150,214,182,246,142,206,174,238,158,222,190,254,129,193,161,225
60070 DATA 145,209,177,241,137,201,169,233,153,217,185,249,133,197,165,229,149
60080 DATA 213,181,245,141,205,173,237,157,221,189,253,131,195,163,227,147,211
60090 DATA 179,243,139,203,171,235,155,219,187,251,135,199,167,231,151,215,183
60100 DATA 247,143,207,175,239,159,223,191,255
60110 OPEN #4:FOR I=7680+SL TO 7992+SL STEP B:M=(I-7680-SL)/B+1
60120 FOR J=1-7680 TO I STEP 320:N=(I-J)/320+1:FOR K=J+7 TO J STEP -1:X=X+PEEK(K)
60130 IF X>127 THEN X=X-64:GOTO 60130
60140 IF K=J+7 THEN A$(N,M)=A$(N,M)+CHR$(SC(XANDPEEK(K-1)+128)):GOTO 60160
60150 A$(N,M)=A$(N,M)+CHR$(SC(X))
60160 NEXT K:NEXT J:FOR L=1 TO 25:PRINT #4,CHR$(B)A$(L,M):NEXT L:PRINT #4,CHR$(B):NEXT L
60170 PRINT #4:CLOSE #4
60180 RETURN
```

3-D Plotter

This is a conversion to C128 basic of a program originally published in the April '84 issue of ETI. The domains of X and Y must be about -300 to 300 at most, and there should be a fairly large number of lines

each way, but apart from that, the program is fairly similar apart from the screen dump routine at line 60000 to 60180

Nicholas Scull
Mount Lawley
WA

Minimart

FOR SALE: Applix 1616 computer consisting of 2 x 3.5" Chicon drives. Disk/coprocessor board. Samsung monitor (new). New keyboard. Power supply with mains filter. Genuine (expensive) case. Cassette deck. Joystick. It is very well built (machined IC sockets and 4 x expansion sockets). Jeremy Ellis, 10 Mercedes Crt., Rosanna 3084. (03) 459-5698.

NEW PRINTER: \$205 — Genuine IBM 8½" Printer, 80 column,

buy own adapters for Apple, Commodore, Atari. Tony Petro-ski, 6 Crichton Place, Dapto Heights, NSW 2530.

For Sale: ETI and EA back issues. ETI — 1981-1987. EA — 1982-1987. Phone: Andrew after hours on 371-6336.

WANTED URGENTLY — Circuit diagrams for a Dokorder 1140 & any spare parts. P.O. Box 606, Horsham, 3400 or Ph. (053) 82 1351 and ask for Steve.

```
10 REM DISK DIRECTORY DUMPER
20 REM "BY G.TUNNY (C) COPYRIGHT 1988"
30 REM*****
40 LPRINTCHR$(27);CHR$(21);:REM SET SINGLE LINE FEED
50 CLS:PRINT"          DISK DUMPER          ":REM INVERSE
60 INPUT"HEADING FOR DISK";H$
70 INPUT"INSERT DISK AND HIT RETURN";XZ$
80 LPRINT"-----";H$;:-----
85 LPRINT
90 POKE30876,1
100 STATUS
105 LPRINT
107 POKE30876,1
110 DIR
120 FOR I=1 TO LEN(H$)+7
130 LPRINT "-" ;:NEXT I
135 LPRINT "-"
140 INPUT"ANOTHER COPY";Y$
150 IF Y$="YES" OR Y$="Y" THEN RUN
```

Disk Directory Dumper

This handy little program dumps the disk directory and

the disc status directly on to the printer.

G. Tunny
Gorokan
NSW

ERRATA — ETI-1413

Astute readers will have noticed that our presentation of the ETI-1413 (ETI June 1988, p78) was a right royal shambles! What can we say? Even the best run outfit has its off days. As we clean the egg off our faces, please note a new parts list, which overrides both the previous parts list and the values on the original circuit diagram:

Resistors

R1, 2, 3, 7, 9, 14,
21, 22 10k
R4, 16, 17, 20 3k9
R5, 6, 8, 11, 15 100k
R10 22k
R12 33R
R13 390k
R18, 19 2k2

RV1 10k twin gang
pc board
mounting
RV2 20k twin gang
pc board
mounting
RV3 10k log
RV4, 6, 7 10k
RV5 20k trim
Capacitors
C1, 2 33n ceramic
C3 1µ/50V
electro.
C4, 5 1µ tant.
C6, 7 1µ/35V tant.
C8, 9 1000µ/25V electro
C10, 11 5n6 ceramic

Semiconductors

IC1, 3, 5 TL 072 or equiv.
IC2, 4 TL 071 or equiv.
IC6 7815
IC7 7915
D1, 2 IN914 or equiv.

Note that the ABOVE and BELOW level LEDs are not labeled, and one is shown with the reverse polarity. Also note that C6 and C7 connect to the ground rail in the normal fashion.